OBSTRUCTION DATA SHEET

ODS 6075
LIVERMORE MUNICIPAL AIRPORT
LIVERMORE, CALIFORNIA

DIGITIZED FROM

OC 6075
SURVEYED MARCH 1991
6TH EDITION

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THE NATIONAL OCEAN SERVICE
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FOR THE FEDERAL AVIATION ADMINISTRATION

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OBSTRUCTION DATA SHEET

The Obstruction Data Sheet (ODS) provides digital obstruction and runway data for use in aircraft arrival and departure planning. This information has been obtained using field survey and photogrammetric methods by the Photogrammetry Branch of the National Ocean Service in accordance with Federal Aviation Regulations Part 77 (FAR-77), "Objects Affecting Navigable Airspace" and FAA Nr. 405, "Specifications - Airport Obstruction Chart and Related Products."

The ODS is a derivative of the Airport Obstruction Chart (OC). The source OC is indicated on the ODS cover. All objects, both obstructing and nonobstructing, that carry an elevation on the OC are listed in the ODS. The ODS (and OC) depict a representation of objects that existed at the time of the OC field survey.

ODS information is arranged as follows:

1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the physical end and threshold of Runway 9R. Objects in the Runway 27L approach or primary are listed with Runway 27L. (Objects in the common 9R/27L primary area are listed with both runways.)

2. All objects not included in "1" above are listed with the Airport Reference Point (ARP).

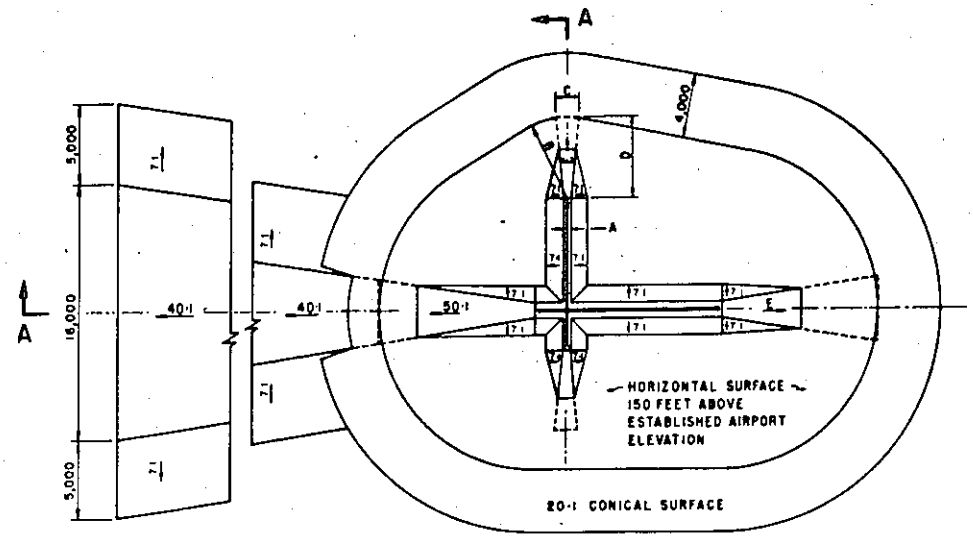
3. Runway configuration and runway lengths, widths, and elevations are presented on the ODS last page.

The FAR-77 imaginary approach surfaces for which the obstruction surveys were performed are coded in the ODS as follows (see footnote 2 on page 3):

A(V) ..... Utility runway - visual approach only
A(NP) .... Utility runway - nonprecision instrument approach
B(V) ..... Nonutility runway - visual approach only
C ..... Nonutility runway - nonprecision instrument approach with visibility minimums greater than 3/4 mile
D ..... Nonutility runway - nonprecision instrument approach with visibility minimums as low as 3/4 mile
PIR ..... Precision instrument runway
SUPLC ... Supplemental C underlying a B(V)

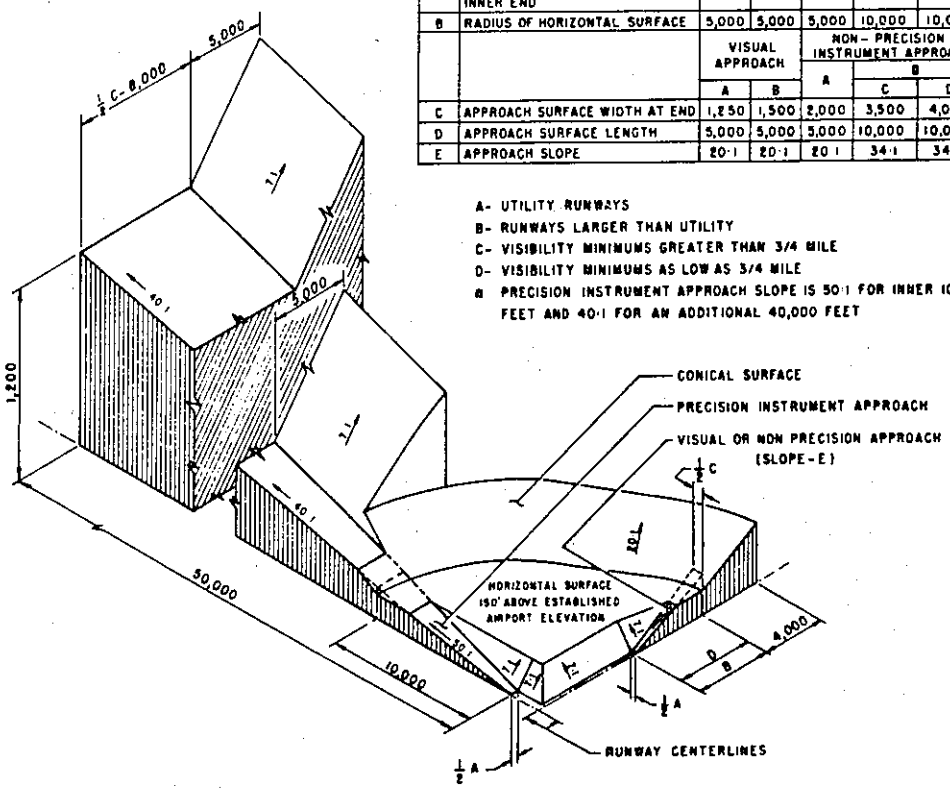
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

Primary surface width is determined by the widest approach at the two approach/primary interfaces for that runway.



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B		
					C	D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	B		
					C	D	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

A- UTILITY RUNWAYS
B- RUNWAYS LARGER THAN UTILITY
C- VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
D- VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
* PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET



ISOMETRIC VIEW OF SECTION A-A

FAR-77 CIVIL AIRPORT
IMAGINARY SURFACES

ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

X[1]	X[2]	XXXX/XXXX[3]	XXXXXX.XXX[4]	XXXXXXX.XXX[4]	XXXXXXX[5]	XXXX/XXXX[6]	XXXXXX.XXX[7]	XXXXXXX.XXX[7]

OBJECT	LAT	LONG	A[8]	ELEV[9]	AGL[10]	HAR[11]	HAT[11]	HAA[11]	DEND[12]	DTHR[12]	DCLN[12]	PNTR[13]
XXXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX
XXXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX

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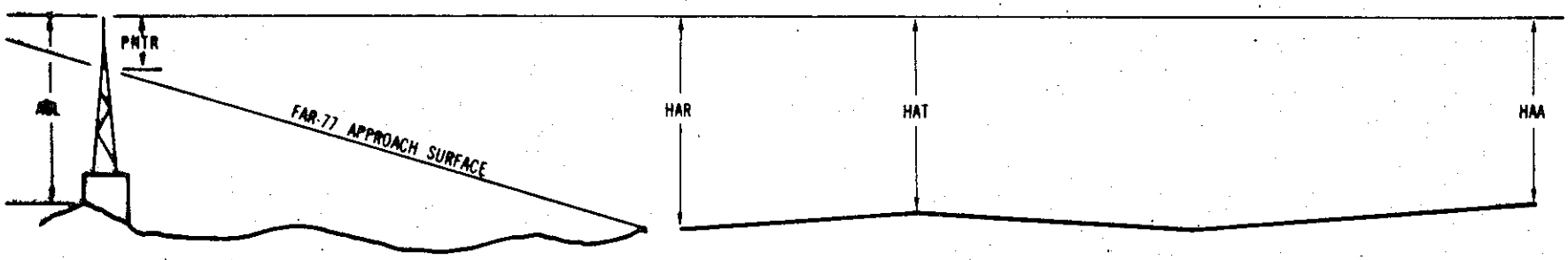

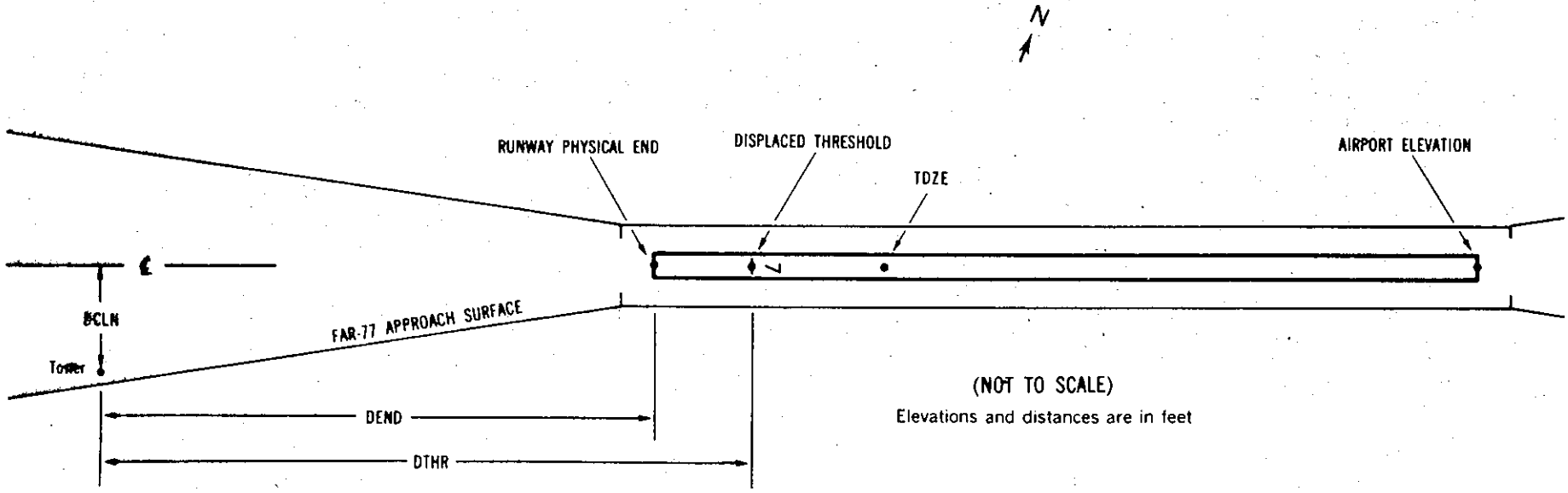

(NOT TO SCALE)

Elevations and distances are in feet

EXPLANATION OF FOOTNOTES

[1] Data block identifier. If a runway number is entered (reference runway), this data block will contain data pertinent to the reference runway and to objects in the FAR-77 approach and primary area of the reference runway. If ARP is entered, this data block will contain the ARP position and data relative to all objects not in an FAR-77 approach or primary area.

[2] For the reference runway, the lowest FAR-77 approach surface for which an obstruction survey was performed. (More than one surface may be surveyed.)

[3] Reference runway approach physical end elevation/touchdown zone elevation

[4] Latitude and longitude of reference runway approach physical end

[5] Reference runway geodetic azimuth reckoned clockwise from south

[6] Reference runway displaced threshold elevation/touchdown zone elevation

[7] Latitude and longitude of reference runway displaced threshold

[8] Accuracy Code:

Horizontal	Vertical
1 = 20	A = 2
2 = 40	B = 5
	C = 20

[9] Mean Sea Level (MSL) elevation at top of object. This value includes 15 feet added to noninterstate roads, 17 feet added to interstate roads, and 23 feet added to railroad tracks.

[10] Height above ground level (AGL). AGLs are provided only for those objects appearing on the OC that are equal to, or greater than, 200 feet AGL. AGL accuracy is ±10 feet.

[11] HAA - Height above airport
HAR - Height above reference runway approach physical end
HAT - Height above reference runway touchdown zone elevation

[12] DEND - Distance along reference runway centerline from point perpendicular to object to reference runway approach physical end
DTHR - Distance along reference runway centerline from point perpendicular to object to reference runway threshold
DCLN - Distance left (L) or right (R) of reference runway centerline as observed facing forward in a landing aircraft.

A negative value for DEND or DTHR indicates object is in primary area on roll-out side of zero distance point.

[13] PNTR - Penetration of indicated FAR-77 approach or primary surface (see footnote 2).

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AIRPORT ELEVATION 397

7L PIR 370/383 374138.427N 1214941.988W 2703403

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
WINDSOCK	374136.58	1214837.88	1A	413		43	30	16	-5154		136R	16
OL ON GLIDE SLOPE	374135.53	1214848.99	1A	428		58	45	31	-4263		250R	36
OL ON LIGHTED WINDSOCK	374135.60	1214900.75	1A	413		43	30	16	-3317		253R	27
WINDSOCK	374139.67	1214924.45	1A	389		19	6	-8	-1409		140L	15
FENCE	374141.77	1214928.25	1A	377		7	-6	-20	-1101		349L	5
FENCE	374141.86	1214938.22	1A	374		4	-9	-23	-300		350L	3
FENCE	374142.53	1214944.06	1A	376		6	-7	-21	171		414L	6
POLE	374133.83	1214944.56	1A	390		20	7	-7	202		467R	20
OL ON LOCALIZER	374138.48	1214948.76	1A	382		12	-1	-15	544		0R	5
POLE	374134.42	1214950.30	1A	397		27	14	0	664		412R	18
TREE	374143.96	1215013.97	1A	427		57	44	30	2576		534L	9

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AIRPORT ELEVATION 397

25R PIR 397/397 374137.907N 1214836.618W 0903443

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
POLE	374133.83	1214944.56	1A	390		-7	-7	-7	-5456		467L	20
FENCE	374142.53	1214944.06	1A	376		-21	-21	-21	-5425		414R	6
FENCE	374141.86	1214938.22	1A	374		-23	-23	-23	-4955		350R	3
FENCE	374141.77	1214928.25	1A	377		-20	-20	-20	-4154		349R	5
WINDSOCK	374139.67	1214924.45	1A	389		-8	-8	-8	-3846		140R	15
OL ON LIGHTED WINDSOCK	374135.60	1214900.75	1A	413		16	16	16	-1937		253L	27
OL ON GLIDE SLOPE	374135.53	1214848.99	1A	428		31	31	31	-992		250L	36
WINDSOCK	374136.58	1214837.88	1A	413		16	16	16	-100		136L	16
HANGAR	374143.36	1214830.86	1A	411		14	14	14	457		557R	9
FENCE	374135.51	1214830.46	1A	405		8	8	8	497		237L	2
BUILDING	374143.49	1214827.33	1A	413		16	16	16	741		572R	5
TREE	374135.39	1214825.79	1A	417		20	20	20	873		246L	7
HANGAR	374141.18	1214822.04	1A	416		19	19	19	1169		343R	-1
TREE	374131.22	1214820.37	1A	442		45	45	45	1312		663L	23
TREE	374133.73	1214816.80	1A	424		27	27	27	1597		407L	-1
ROAD (N)	374137.68	1214816.08	1A	416		19	19	19	1651		7L	-10
TREE	374138.91	1214743.74	1A	480		83	83	83	4249		145R	2
ANTENNA	374132.50	1214742.27	1A	482		85	85	85	4374		502L	2
TREE	374129.68	1214739.57	1A	492		95	95	95	4594		786L	7
ANTENNA	374145.20	1214736.55	1A	484		87	87	87	4820		787R	-5
TREE	374145.70	1214734.72	1A	494		97	97	97	4967		839R	2
ANTENNA ON POLE	374148.69	1214608.59	1A	669		272	272	272	11886		1214R	30
TREE	374149.47	1214541.85	1A	708		311	311	311	14034		1315R	15
OL ON ANTENNA	374242.35	1213935.07	2C	1656		1259	1259	1259	43451		6992R	228
WINDMILL	374222.67	1213909.07	2C	1565		1168	1168	1168	45562		5027R	84
WINDMILL	374210.48	1213855.67	2C	1543		1146	1146	1146	46654		3807R	35
GROUND	374024.13	1213816.65	2C	1860		1463	1463	1463	49919		6913L	270

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AIRPORT ELEVATION 397

7R A(V) 376/ 374133.362N 1214926.465W 2703454

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
POLE	374133.83	1214944.56	1A	390		14		-7	1455		33L	-49
POLE	374134.42	1214950.30	1A	397		21		0	1917		87L	-65

25L A(V) 392/ 374133.090N 1214852.887W 0903514

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
FENCE	374135.51	1214830.46	1A	405		13		8	1800		264R	-67
TREE	374135.39	1214825.79	1A	417		25		20	2176		255R	-74
TREE	374130.76	1214823.56	1A	438		46		41	2360		211L	-62
TREE	374131.22	1214820.37	1A	442		50		45	2615		162L	-71
OL ON BUILDING	374130.33	1214817.36	1A	441		49		44	2859		250L	-84
TREE	374133.73	1214816.80	1A	424		32		27	2900		94R	-103

OC6075

AIRPORT ELEVATION 397

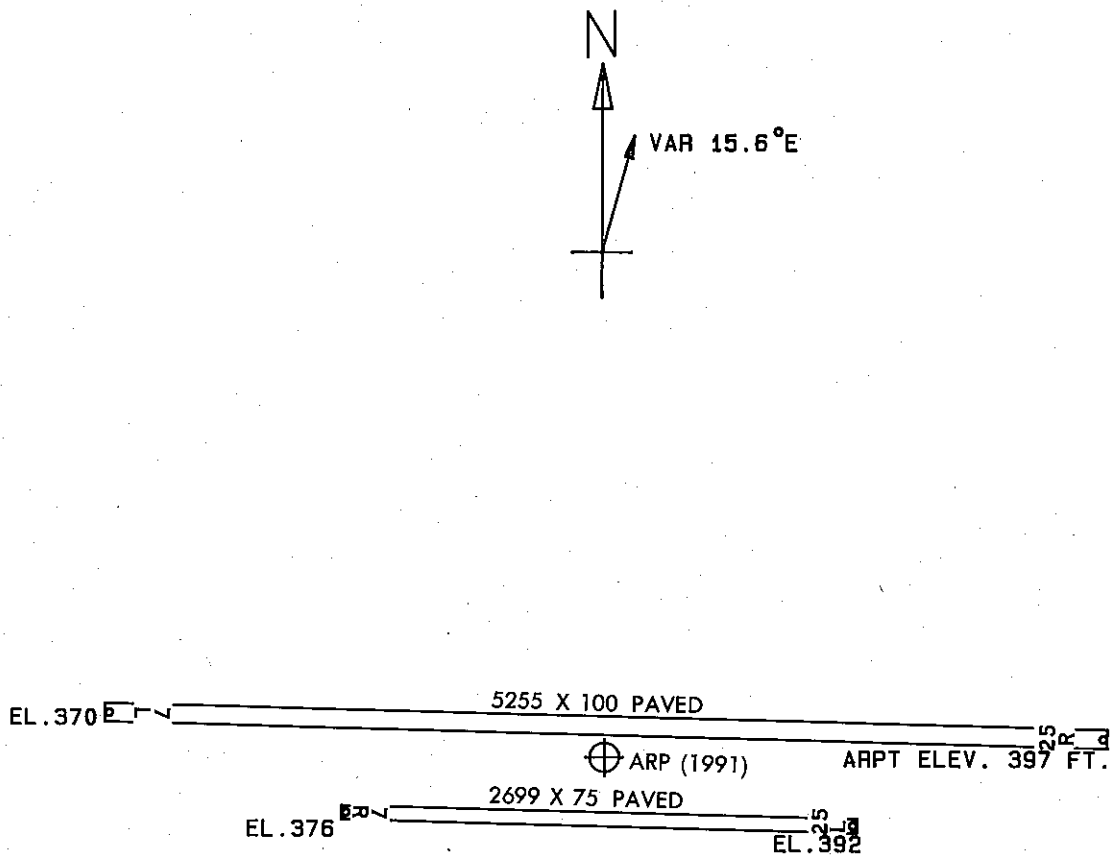
ARP 374136.491N 1214909.429W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
LIGHT STANDARD	374145.14	1214907.55	1A	425		28	354 13	888
ANTENNA ON OL ATCT	374145.39	1214859.65	1A	450		53	25 31	1195
LIGHT STANDARD	374145.22	1214919.47	1A	420		23	301 57	1196
TREE	374143.51	1214925.53	1A	396		-1	283 8	1476
LIGHT STANDARD	374143.24	1214851.87	1A	432		35	48 35	1567
TREE	374144.29	1214927.81	1A	412		15	282 29	1675
LIGHT STANDARD	374143.89	1214846.67	1A	435		38	52 8	1977
HANGAR	374143.54	1214838.73	1A	408		11	58 16	2568
TREE	374144.00	1214940.43	1A	406		9	271 22	2605
TREE	374146.31	1214940.88	1A	424		27	275 51	2716
TREE	374143.95	1214943.69	1A	401		4	269 43	2856
TREE	374145.34	1214833.13	1A	450		53	57 20	3052
TREE	374145.62	1214816.33	1A	445		48	62 11	4367
GROUND	374227.39	1214945.48	1B	613		216	315 2	5908
TREE	374157.96	1214801.05	1A	538		141	52 50	5910
OL ON RADIO TOWER	374238.99	1214902.70	1B	809		412	349 18	6345
TREE	374151.96	1214746.17	1A	515		118	61 14	6872
TREE	374251.32	1214919.45	1B	578		181	338 20	7611
GROUND	374246.68	1214835.17	1B	736		339	5 36	7615
FENCE	374259.76	1214948.23	1B	795		398	324 5	8981
GROUND	374306.74	1214849.65	1B	913		516	354 17	9266
TREE	374050.93	1214725.46	1B	550		153	103 16	9544
GROUND	374304.01	1214810.96	1B	816		419	12 21	10022
GROUND	374235.36	1214729.01	1B	633		236	37 58	10029
GROUND	374251.54	1214741.64	1B	571		174	27 18	10363
TREE	374101.16	1214706.84	1B	541		144	94 19	10482
GROUND	374314.87	1214951.39	1B	944		547	325 41	10506
GROUND	374223.95	1214710.79	1B	665		268	47 40	10676
TREE	374038.38	1214718.19	1B	583		186	107 42	10701
GROUND	374314.15	1214803.42	2C	825		428	12 38	11212
TREE	374259.98	1215057.86	2C	628		231	298 30	12135
GROUND	374336.97	1214845.63	2C	847		450	353 19	12335
GROUND	374341.09	1214923.12	2C	728		331	339 25	12651

AIRPORT ELEVATION 397

ARP 374136.491N 1214909.429W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
GROUND	374208.12	1214636.63	1B	625		228	59 47	12691
GROUND	374336.06	1215017.66	2C	961		564	320 1	13279
GROUND	374326.59	1214739.15	2C	738		341	17 29	13292
GROUND	374352.41	1214858.66	2C	751		354	348 0	13775
GROUND	374345.54	1214813.13	2C	868		471	3 31	13815
POLE	374327.01	1215057.80	2C	780		383	306 29	14171
TREE	373922.72	1215001.85	2C	698		301	181 42	14172
GROUND	374355.37	1214841.00	2C	886		489	353 38	14232
GROUND	374356.27	1214939.21	2C	820		423	334 48	14339
GROUND	374355.33	1214815.50	2C	912		515	1 33	14697
GROUND	374326.53	1215113.99	2C	711		314	302 27	14970
GROUND	374348.71	1214737.35	2C	933		536	13 21	15284
GROUND	374339.15	1215109.76	2C	780		383	306 29	15730
TREE	374030.70	1215710.75	2C	1567		1170	244 41	39261
GROUND	374036.63	1215713.96	2C	1502		1105	245 36	39419



TOUCHDOWN ZONE	RUNWAY ELEVATION
7L	383
25R	397

LIVERMORE MUNICIPAL AIRPORT

LIVERMORE, CALIFORNIA

(NOT TO SCALE)